# Transit Master Plan Appendix A Urban Bus Network Enhancements



### **Section 1: Introduction**

#### Context

This note provides a details of the proposed short-medium term bus network enhancements associated with the Washtenaw County Transit Master Plan. These plans are conceptual and will be subject to refinement and public scrutiny.

This note only provides conceptual plans for the urban bus network enhancements because TheRide had already developed preliminary plans in this area. TheRide will support communities in other areas of the County to develop detailed plans for other services and proposals in future.

#### Needs

Preliminary plans by TheRide Service Development Department, the Transit Audit and Needs Assessment and comments from members of the public have helped identify a number of areas where the bus network should be enhanced to help address the community's needs, summarized as follows:

- West of Ann Arbor simplification of the network and extension of coverage beyond the city limits
- Ypsilanti services in terms of coverage, length of ride and operating hours and days
- Extensions / enhanced service to the East Medical Center, Whittaker Road Library, Willow Run Airport, EMU, St. Joseph Mercy Hospital, and other urban/suburban areas within the surrounding townships
- Increased service frequency on key corridors
- Reduction in one way loop services

#### **Service Planning Guidelines**

The following points aim to provide clarity to the service planning process:

- Changes to the network should seek to limit, as far as possible, negative impacts on existing passengers
- Changes to the network should typically help to reduce travel times for the majority of passengers
- New or adapted services should be as far as possible simple to understand
- New or adapted services should be fair recognizing the needs of local people from all sections of the community

#### **Structure of this Report**

This report consists of five sections including this introduction; the following four sections are:

- 2: Changes to the west of Ann Arbor area;
- 3: Changes to the Ypsilanti area network;
- 4: New services;
- 5: Key corridor upgrades; and
- 6: Summary.

### Section 2: West of Ann Arbor Area

#### Overview

To create more attractive services but minimize passenger disruption the routes will be simplified and two-way operation will be introduced on virtually all sections. Figures A1 and A2 show the changes to the network proposed.

#### **Route 8**

Route 8 will continue to serve Main Street and Pauline Boulevard in both directions, but from the intersection of Pauline Boulevard and Stadium Boulevard, the route will operate in one direction (clockwise) along Pauline Boulevard, Maple Road and Stadium Boulevard.

#### **Route Removals**

Routes 9, 12A, 12B, 15 and 18 will be removed and replaced with six new routes. These are described in the following paragraphs.

#### Route 9

The new route 9 will run from the Blake Transit Center along Liberty Street and the northern part of Scio Ridge in both directions.

#### Route 10

The new route 9 will operate in both directions along Jackson Avenue/Huron Street between Zeeb Road and downtown.

#### Route 11

The new route 11 will operate in both directions between the Blake Transit Center and the intersection of Dexter Road and the M-14, along Huron Street and Dexter Road. At present there is no opportunity to turn a bus at the intersection of Dexter Road and the M-14, if no suitable location is found the bus may extend south to Jackson Avenue to turn around.

#### Route 12

The new route 12 will operate in both directions along Miller Avenue between the Blake Transit Center and the Miller Avenue Park & Ride (at the intersection with the M-14).

#### Route 15

The new route 15 will operate in both directions from the Blake Transit Center to Skyline High School along South Main, Madison, 7<sup>th</sup> Street, Stadium Boulevard and Maple Road.

#### Route 17

The new route 17 will operate in both directions from the Blake Transit Center to east of the intersection of Oak Valley Drive and Ann Arbor-Saline Road. The route will serve Main Street, Scio Church Road and Oak Valley Drive.

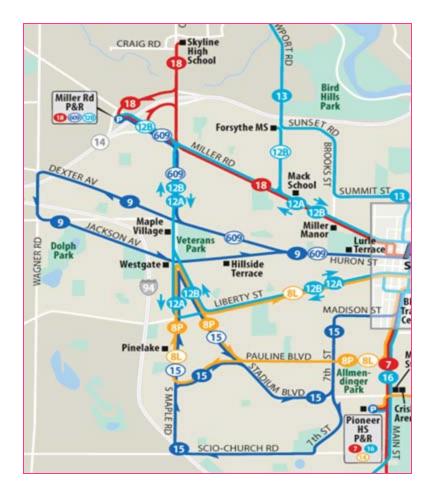
#### **Impacts**

The routes in the west of Ann Arbor area will be greatly simplified and easier for passengers to understand. Also most services will operate 7 days a week and therefore become a more attractive and viable option for local residents. Virtually all the stretches of road that are currently served will be served with the new arrangements and travel times from virtually all areas will be similar or better than at present.

The arrangement also provides service to Jackson Avenue further beyond the limits of the city of Ann Arbor to the intersection with Zeeb Road and provides much needed service to Scio Ridge Road.

### Section 2: West of Ann Arbor Area

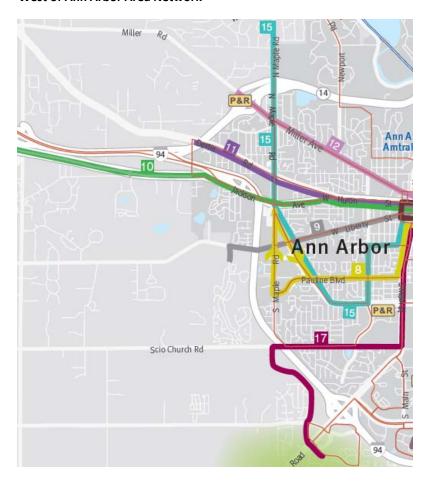
Figure A1: West of Ann Arbor Area Network Today



#### Features:

- Four services with large loops (routes 12A, 12B, 9 and 15)
- Two services with small loops (routes 18 and 8)

Figure A2: Short to Medium Term Conceptual Proposals for the West of Ann Arbor Area Network



#### Features:

- Five two-way linear services (routes 9, 10, 11, 12, 15, 17)
- One services with a small loop (route 8)

### Section 3: Ypsilanti Area Changes to the Ypsilanti Area Network

#### Overview

To create more attractive services with shorter running times but also to minimize passenger disruption the three loop services (routes 10, 11 and 20) will be cut up to create more, services with greater geographical coverage and more stretches of two-way operation (routes 41, 42, 43, 44, 45, 46 and 49). These will be complemented by changes to routes 33 and 6 (to create 47, 48 and 6). The proposals are shown in Figures A3 and A4 and are described in the following paragraphs.

#### Route 10

- Route 10 is replaced by routes 41, 42 and 43.
- Route 41 will create a new larger route to provide access to passengers living in south Superior Township and serve the eastern edge of the route 10 (by American Legion Memorial Park).
- Route 42 will serve most of route 10, but will operate one
  way until the intersection of Forest Avenue and Ford
  Boulevard (not serving the stretch of Cross Street
  between Prospect Road and Michigan Avenue) and will
  turn back towards Ypsilanti downtown at the intersection
  of Clark Road and Wiard Boulevard.
- Route 43 will serve Michigan Avenue from downtown to Ridge Road with a small turn around loop on Holmes Road. This will provide quick, two-way access from downtown to the Kroger store.

#### **Impacts**

- Network coverage in the north east of Ypsilanti will be greatly enhanced and the proposed services will operate seven days a week, providing much needed access to opportunities for local residents.
- This area is expected to experience high demand as it has high population densities, high proportions of households with no cars, and a relatively high proportion of households living below the poverty line.
- 36% of route 10 boardings occur at the Ypsilanti Transit Center and these people are likely to benefit from two routes with two-way operation.
- However, this figure is less than 50% suggesting there is a significant proportion of people who are using the bus to make connections along the route and these people could be disadvantaged by the cut. The number of new routes and the overlapping sections of these should minimize the impact.
- Route 10 experiences a small peak in boardings in the center of the route on MacArthur Boulevard and many of these passengers should benefit from the shorter loop service.

### Section 3: Ypsilanti Area

Figure A3: Ypsilanti Area Network Today

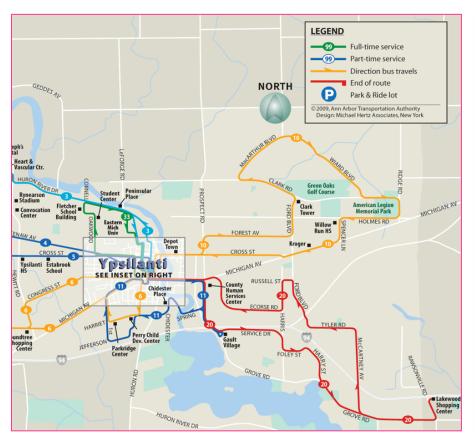
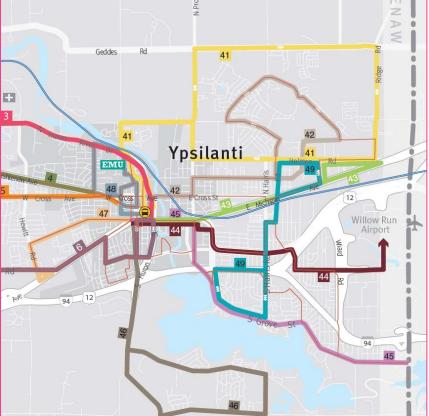


Figure A4: Short to Medium Term Conceptual Proposals for the Ypsilanti Area Network



#### **Features**

- Four loops terminating downtown with one-way operation (10, 20, 11, 33)
- Four largely linear services operating to Ann Arbor (3, 4, 5, 6), two with loops at the Ypsilanti end (3, 6)

#### **Features**

- Nine new routes in the Ypsilanti area with greater geographical coverage and more stretches of two-way operation (routes 41, 42, 43, 44, 45, 46, 47, 48, 49)
- Full two-direction service on route 6

### Section 3: Ypsilanti Area Changes to the Ypsilanti Area Network

#### Route 20

- Route 20 is replaced by routes 44, 45 and 49.
- Route 44 will replace much of the northern section of route 20, serving Ecorse Road and out to Willow Run airport. The service may be curtailed at Wiard Road on weekends depending on the needs of airport employees and visitors. It also replaces part of the eastern section of route 11.
- Route 45 will provide a new connection along Grove Road between I94 and Harry Street and will replace the southeastern stretch of route 20, serving Grove Road. It also replaces part of the eastern section of route 11.
- Route 49 will introduce a new north-south connection between the residential areas between Ford Lake and I94, Willow Run High School and the shopping destinations: Gault Village, Sunrise Shopping Center and Kroger.

#### **Impacts**

- Network coverage in the south east of Ypsilanti will be greatly enhanced and the proposed services will operate seven days a week, providing much needed access to opportunities for local residents.
- Connectivity between key retail, employment and educational facilities will be improved, with some connections not involving a transfer downtown.
- This area is expected to experience high demand as it has high population densities, a high proportion of households with no cars, and a high proportion of households living below the poverty line.
- 38% of route 20 boardings occur at the Ypsilanti Transit Center and these people are likely to benefit from two routes with two-way operation.
- However, this figure is less than 50% suggesting there is a significant proportion of people who are using the bus to make connections along the route and these people could be disadvantaged by the cut. The number of new routes and the overlapping sections of these should minimize any potential impact.

### Section 3: Ypsilanti Area Changes to the Ypsilanti Area Network

#### Route 11

- The stretches of route 11 that are not replaced by the 44 and 45 (as described) are largely replaced by a redesign of route 6, and the introduction of route 47. Route 46 will provide a new connection in this area to serve the target area around the Ypsilanti District Library on Whittaker Road, Ypsilanti Township Civic Center and Point Creek Shopping Center.
- Route 6 will be re routed into downtown Ypsilanti with two way operation along Michigan Avenue and no service on Congress Street. This change is not expected to have any material effect on running times.
- Route 46 will provide a new connection south along Huron Street and serve the Ypsilanti Township Civic Center, the residential areas between Textile Road and Ford Lake and the Whittaker Road Library.
- Route 47 will operate along Congress Road and Hewitt Road before turning back with a small loop on Michigan Avenue.

#### **Impacts**

- Network coverage in the south and south west of Ypsilanti will be greatly enhanced and the proposed services will operate seven days a week, providing much needed access to opportunities for local residents.
- This area is expected to experience high demand as it has high population densities and a high proportion of households with no cars, and a high proportion of households living below the poverty line.
- 37% of route 11 boardings occur at the Ypsilanti Transit Center and these people are likely to benefit from two routes with two-way operation.
- However, this figure is less than 50% suggesting there is a significant proportion of people who are using the bus to make connections along the route and these people could be disadvantaged by the cut. The number of new routes and the overlapping sections of these should minimize any potential impact. There is one section along Jefferson that is no longer served, but daily boardings are low in this section.

#### Route 33 – The EMU Shuttle

Route 33 will be replaced by route 48. Route 48 is similar to 33 but instead of operating along Hamilton Street, the eastern edge of the loop is shifted west on to Ballard Street / College Place and Forest Avenue. In addition the service will be extended to the Hewitt Road / Rynearson Stadium area for Park & Ride purposes. The removal of the western connection to Fletcher Elementary School is already proposed to occur in August 2011.

#### **Impacts**

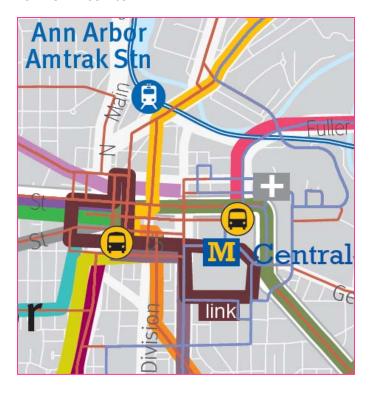
 The travel times associated with the revised route will be quicker and the Park & Ride facility will provide an attractive option for EMU students who travel longer distances.

#### Section 4: New Services

#### The Link

- A new downtown circulator service in Ann Arbor is proposed. This service will resemble The Link service which was discontinued in 2009.
- The new service will connect Main Street, Liberty Street, State Street and Central Campus. Proposals include 7 day operation, with 3 services per hour.

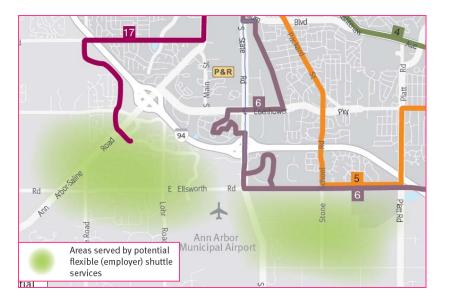
Figure A5: Short to Medium Term Conceptual Proposals for The Link Service



#### **New Flexible Services**

There are two areas to the south of Ann Arbor identified in Figure A6 with green shading. It is not currently possible to serve these areas with an effective standard bus service so flexible services are proposed to provide a connection from these areas to the nearby bus services.

Figure A6: Short to Medium Term Conceptual Proposals for Flexible Services



### Section 5: Key Corridor Upgrades

Five busy routes have been selected to be develop as flagship corridors. These are identified below and are shown on Figure A6.

These corridors will have seven day, high frequency services and provide a focus for bus priority initiatives such as signal priority or priority lanes.

As well as being some of the busiest routes on the network, these services also reflect sections of the proposed High Capacity Transit Corridors (as identified in the Transit Master Plan and progressed by the Re-Imagining Washtenaw Avenue and the Ann Arbor Connector Studies) and will help TheRide build further demand and focus development in these areas. As a consequence, parts of these routes may be withdrawn or restructured when the High Capacity Transit proposals are implemented.

- Route 2 has been selected because:
  - it is already a busy route;
  - it operates part of the Connector corridor; and
  - it serves key university destinations and two of the existing Park & Ride sites.
- Route 3 has been selected because:
  - it is a fairly busy route;
  - with the 4 and 6 it provides coverage across the routes between Ann Arbor and Ypsilanti; and
  - it serves key destinations including St. Joseph Mercy Hospital and Washtenaw Community College.
- Route 4 has been selected because:
  - it is already a busy route;
  - it is the most direct connection between Ann Arbor and Ypsilanti;
  - it serves key destinations along Washtenaw Avenue; and
  - it operates part of the Washtenaw Avenue corridor.
- Route 5 has been selected because:
  - it is already a busy route;
  - it serves large residential populations along the route; and
  - it can be split to provide new connections to the south.
- Route 6 has been selected because:
  - it is already a busy route; and
  - it serves key destinations including Briarwood Mall, Meijer on Carpenter Road and the Roundtree Shopping Center.

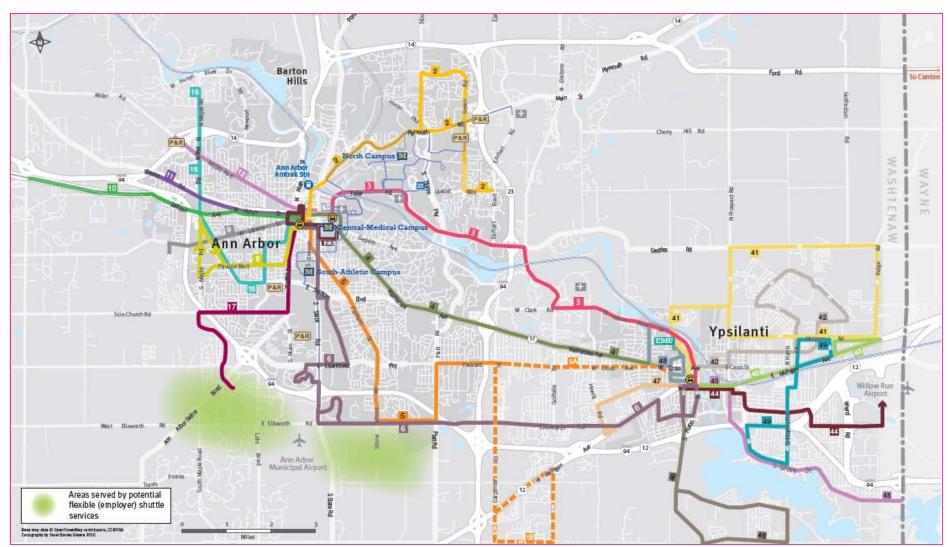
#### Route 5

The uplift in frequency on route 5 will provide the opportunity to split the route at the intersection of Packard Street and Carpenter Road.

The existing route 5 connection to downtown Ypsilanti will be served by two buses per hour and a further two buses per hour will serve Carpenter Road, Michigan Avenue, Munger Road and Textile Road providing access to the Roberto Clemente Student Development Center, Sam's Club and housing on Michigan Avenue. This extension is shown in Figure A6.

### Section 6: Summary Proposed Total Service Map

Figure A6: Short to Medium Term Conceptual Proposals for The Whole Network



## Section 6: Summary Service Levels

In summary, this table shows the proposed frequencies of all the new or altered routes. Please note that existing routes 8, 9, 10, 11, 12A, 12B, 15, 18, 20 and 33 will no longer exist under these proposals

Table A1: Short to Medium Term Conceptual Proposals for Whole Network

New / Altered Route	Route	Peak frequency	Midday frequency	Evening frequency	Weekend frequency	PVR**	
West of Ann Arbor Area	8	4	2	2	2	2	
	9	4	2	2	2	2	
	10	4	2	2	2	4	
	11	4	2	2	2	2.67	
	12	4	2	2	2	2.67	
	15	2	2	2	1	2	
	17	2	2	2	1	3	
Ypsilanti Area	41	2	1	1	1	2	
	42	2	1	1	1	1.5	
	43	2	1	1	1	1	
	44	2	1	1	1	1	
	45	2	1	1	1	1.5	
	46	2	1	1	1	2	
	47	2	1	1	1	0.67	
	48	3	3	3	1	1	
	49	2	1	1	1	1	
New Services	Link	3	3	3	3	1	
Key Corridors	2	6	4	4	1.5	6	*
	3	4	2	2	1	6	
	4	8	4	4	2	12	
	5	4	2	2	2	6	
	6	4	2	2	1	8	

<sup>•</sup>Frequencies of 1.5 on the weekend allow for services to run half time with 2 buses per hour and half the time with 1 bus per hour

<sup>\*\*</sup>PVR refers to the peak vehicle requirement, i.e. the maximum number of buses required to operate the service in the peak periods

### Section 6: Summary

To ensure that these proposals address the needs identified in the introduction (from previous work and from outreach) this table shows which routes address each issue. One issue has not been addressed and the reasons for this are given below.

Identified need	Met by routes		
West of Ann Arbor area services – in terms of simplification and coverage	Proposals for routes 8, 9, 10, 11, 12, 15, 17		
Ypsilanti area services – in terms of coverage, length of ride and operating hours and days	Proposals for routes 41, 42, 43, 44, 45, 46, 47, 48, 49, 4, 6		
Extensions / enhanced service to the East Medical Center	No proposals as this facility is already served by UM routes, if this is not deemed sufficient the 2A or 2B could be extended, scheduling permitting		
Extensions / enhanced service to the Ypsilanti District Library on Whittaker Road	Proposal for route 46		
Extensions / enhanced service to Willow Run Airport	Proposal for route 44		
Extensions / enhanced service to EMU	Proposal for route 48		
Extensions / enhanced service to St. Joseph Mercy Hospital and Washtenaw Community College	Proposal for route 3		
Extensions / enhanced service to urban / suburban areas within surrounding townships	Proposals for routes 5, 10, 46, 41		
Increased service frequency on key corridors	Proposals for routes 2, 3, 4, 5, 6		

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